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**west virginia** department of environmental protection

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Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone: (304) 926-0475 • Fax: (304) 926-0479

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

**ENGINEERING EVALUATION / FACT SHEET**

**BACKGROUND INFORMATION**

Application No.: R13-0772L After-the-Fact  
Plant ID No.: 005-00021  
Applicant: Eastern Associated Coal, LLC  
Facility Name: Rocklick Complex  
Location: Bald Knob, Boone County, WV  
SIC Codes: 1221 (Bituminous Coal & Lignite - Surface)  
1222 (Bituminous Coal & Lignite - Underground)  
NAICS Codes: 212111 (Bituminous Coal and Lignite Surface Mining)  
212112 (Bituminous Coal Underground Mining)  
Application Type: Modification  
Received Date: September 26, 2011  
Engineer Assigned: Dan Roberts  
Fee Amount: \$2,000  
Date Received: September 28, 2011  
Complete Date: January 17, 2012  
Applicant's Ad Date: October 3, 2011, January 11, 2012  
Newspaper: *The Charleston Gazette, Coal Valley News*  
UTM's: Easting: 446.64 km    Northing: 4,184.61 km    Zone: 17  
Description: After-the-fact modification to do the following: include existing clean coal conveyor C-R9A installed in 1993; include existing magnetite bin B-R6 located inside the Rocklick prep plant building installed in 1993; and include previously grand-fathered Harris Plant haulroad UPR-H2 because it was lengthened in 2008 from 1.4 miles to 1.64 miles roundtrip.

**BACKGROUND**

Eastern Associated Coal, LLC proposes to modify their existing wet wash coal preparation plant located near Bald Knob, Boone County, WV. Permit R13-0772L will supersede and replace Permit R13-0772K approved on February 6, 2009.

Eastern Associated Coal, LLC proposes to include existing clean coal conveyor C-R9A

installed in 1993; include existing magnetite bin B-R6 located inside the Rocklick prep plant building installed in 1993; and include previously grand-fathered Harris Plant haulroad UPR-H2 because it was lengthened in 2008 from 1.4 miles to 1.64 miles roundtrip.

## DESCRIPTION OF PROCESS

### *Winifrede Raw Coal Handling Facility*

Trucks deliver raw coal to truck dump bin RCTD-2 via transfer point T-R 64A, which drops the raw coal onto conveyor C-R34A via transfer point T-R64B. Conveyor C-R34A transfers the raw coal to conveyor C-R34 via transfer point T-R64B, which transfers it to open storage pile OS-R9. The Winifrede 14 Mine conveys raw coal to open storage pile OS-R10 via transfer point T-R58. Colony Bay Coal Company (ID No. 005-00074, G10-045A) transfers raw coal from their facility to open storage pile OS-R16. Open storage pile OS-R16 was permitted in 2002, but was constructed in 2005 or after. Raw coal from open storage piles OS-R9, OS-R10 and OS-R16 are either reclaimed by an endloader to trucks via transfer point T-R77 or underground reclaim feeders to conveyor C-R24 via transfer point T-R59.

Conveyor C-R24 transfers the raw coal to open storage pile OS-R12 or conveyor C-R25 via transfer point T-R60. An endloader reclaims the raw coal from open storage pile OS-R12 and loads it to trucks via transfer point T-R77. Conveyor C-R25 transfers the raw coal to crusher CR-W1 via transfer point T-R61, where it is crushed and then dropped onto conveyor C-R26 via transfer point T-R85. Conveyor C-R26 transfers the raw coal to conveyor C-R27 via transfer point T-R62, which transfers it to conveyor C-R29 via transfer point T-R63 (see below).

Raw coal from the Winifrede 13A Mine drops onto conveyor C-R28 via transfer point T-R65. Conveyor C-R28 transfers the raw coal to conveyor C-R38 via transfer point T-R76, which transfers it to open storage pile OS-R11 via transfer point T-R29. Raw coal is also moved to open storage pile OS-R11 via transfer point T-R30. Raw coal is reclaimed from open storage pile OS-R11 by underground feeders to conveyor C-R29 via transfer point T-R66.

Conveyor C-R29 transfers raw coal received from open storage pile OS-R11 and conveyor C-R29 and transfers it to conveyor C-R30 via transfer point T-R67. Conveyor C-R30 transfers the raw coal to conveyor C-R31 via transfer point T-R68, which transfers it to conveyor C-R31 via transfer point T-R69. Conveyor C-R31 transfers the raw coal to the Powellton Tunnel via transfer point T-R69. Truck dump bin RCTC-1 has been permitted, but not yet constructed, and can receive dumped coal via transfer point T-R90 and then drop it to the Powellton Tunnel through an enclosed chute via transfer point T-R91. From the Powellton Tunnel, raw coal drops onto conveyor C-R32 via transfer point T-R70. Truck Dump Bin RCTD-1 receives coal from trucks at transfer point T-R90 and then drops it to conveyor C-R32 at transfer point T-R91. Truck Dump Bin RCTD-1 was permitted in 2002, but has not yet been constructed as of November 2011. Conveyor C-R32 transfers the raw coal to conveyor C-R33 via transfer point T-R71. Conveyor C-R33 transfers the raw coal through an safety tube enclosure over State Route 85 to the Rocklick facility at open storage pile OS-R2 (see below).

### *Harris Material Storage and Transfer*

The Black Oak Mine Belt system is currently permitted, but has not yet been constructed. Raw coal will be conveyed out of the Black Oak Mine and drop into open storage pile OS-H9 via transfer point T-H41. The raw coal from open storage pile OS-H9 is reclaimed using an underground feeder via transfer point T-H42 and it is placed on raw coal conveyor C-H15. Conveyor C-H15 conveys the raw coal to screen SC-R3 via transfer point T-R41. Over sized refuse is from screen SC-R3 drops to open storage pile OS-R18 via transfer point T-R42A. Sized raw coal from screen SC-R3 drops to conveyor C-H16 via transfer point T-R43. Conveyor C-H16 transfers the raw coal to another deep mine belt via transfer point T-H43.

A deep mine belt conveys raw coal from the mine and sized raw coal from the Black Oak Mine Belt System and drops it to open storage pile OS-H1 or conveyor C-R14 via transfer point T-H1. Conveyor C-R14 transfers the raw coal to open storage pile OS-R13 via transfer point T-R80. The raw coal from open storage piles OS-H1 and OS-R13 is reclaimed using underground feeders via transfer point T-R39 and it is placed on raw coal conveyor C-R15. Conveyor C-R15 conveys the raw coal to coal sizer unit CR-R2 via transfer point T-R40. Refuse from coal sizer unit CR-R2 drops to open storage pile OS-R15 via transfer point T-R27. Crushed raw coal from coal sizer unit CR-R2 drops to conveyor C-R16 via transfer point T-R42. Conveyor C-R16 transfers the raw coal to the Matewan Tunnel conveyor C-R17 via transfer point T-R44 to be transferred to the Rocklick Preparation Plant (see below). Conveyor C-R17 is a reversing conveyor and can transfer clean coal from Rocklick Preparation Plant clean coal conveyor C-R19 to

### *Rocklick Raw Coal Circuit*

Raw coal can be trucked to the facility via trucks on a paved haulroad PVR-R1 and dumped through transfer points T-R1 and T-R2 into one of two 100-ton raw coal bins B-R1 and B-R2. Trucks travel on PVR-R1 approximately 1.0 mile per trip. Raw Coal may also be dumped via trucks over a high-wall via transfer point T-R1A. This coal is stockpiled in OS-R5. From B-R1 and B-R2, raw coal is placed on conveyors C-R1 and C-R2 via transfer points T-R3 and T-R4, respectively. Each conveyor transfers the raw coal into stockpiles via transfer points T-R5 and T-R6. The coal is then transferred to stockpiles OS-R1 and OS-R2, respectively. The raw coal from these stockpiles is reclaimed using multiple underground feeders T-R7 and T-R8 and is placed on the raw coal conveyor C-R3. Conveyor C-R3 conveys coal to screen SC-R1 via transfer point T-R9.

Raw coal is also conveyed from Harris to Rocklick using an underground conveyor system. From Harris, conveyor C-R17 conveys coal to Rocklick's existing stockpile OS-R5 via transfer point T-R45. Raw coal from OS-R5 is reclaimed using underground feeder T-R46 and is placed on the raw coal conveyor C-R3. Conveyor C-R3 conveys coal to screen SC-R1 via transfer point T-R9.

Additionally, raw coal is also conveyed from Winifrede to Rocklick using an overland conveyor system where it is transferred to stockpile OS-R2 or conveyor C-R39 via transfer point T-R72. From conveyor C-R39, raw coal is placed in stockpile OS-R1 via transfer point T-R81. Conveyor C-R39 was permitted in 2002, but has not yet been constructed as of November 2011. The

raw coal from stockpiles OS-R1, OS-R2, and OS-R5 is reclaimed using multiple underground feeders T-R7, T-R8, and T-R46 and is placed on the existing raw coal conveyor C-R3. Conveyor, C-R3 conveys coal to screen SC-R1 via transfer point T-R9. Raw coal is transferred from screen SC-R1 to the rotary breaker RB-R1 via transfer point T-R11 or sized coal will pass through screen SC-R1 via transfer point T-R10 directly to conveyor C-R3. Raw coal transferred from rotary breaker RB-R1 is placed on conveyor C-R4 via transfer point T-R13.

#### *Rocklick Sized Coal Circuit*

Sized coal is transferred from screen SC-R1 to conveyor C-R4 via transfer point T-R10. The rotary breaker RB-R1 sends sized coal to conveyor C-R4 via transfer point T-R13. Conveyor C-R4 conveys coal to screen SC-R2 via transfer point T-R18. Sized coal is then transferred from screen SC-R2 to conveyor C-R8 via transfer point T-R21, or may directly by-pass SC-R2 via flop gate. Raw coal is transferred from screen SC-R2 to wet wash via transfer point T-R23. Conveyor C-R8 conveys sized coal to conveyor C-R9 via transfer point T-R22. Raw Coal can bypass the wet wash via conveyor C-R40, crusher CR-R1, and conveyor C-R41. Conveyor C-R40, crusher CR-R1 and conveyor C-R41 were permitted in 2002, but has not yet been constructed as of November 2011.

#### *Rocklick Clean Coal Circuit*

Magnetite is pneumatically loaded from trucks to magnetite bin B-R6, which is equipped with a filter vent system, where it is stored and then introduced into the wet wash circuit as needed. Clean coal is transferred from the wet wash process to conveyor C-R9A via transfer point T-R25A and then to conveyor C-R9 via transfer point T-R26A. Conveyor C-R9 also receives clean coal directly from the wet wash circuit via transfer points T-R25 and T-R26. Conveyor C-R9 conveys the clean coal to conveyor C-R10 via transfer point T-R28 and from conveyor C-R10 the coal is transferred to either conveyor C-R11 or clean coal open stockpile OS-R3 via transfer point T-R31. Conveyor C-R11 conveys coal to conveyor C-R18 or clean coal open stockpile OS-R4 via transfer point T-R32. From conveyor C-R18, coal is conveyed to clean coal open stockpile OS-R6 via transfer point T-R47. Clean coal from the stockpiles is then transferred to conveyor C-R12 by a series of underground reclaim feeders via transfer points T-R48, T-R33, and T-R34, respectively. Conveyor C-R12 conveys coal to either conveyor C-R13 or C-R19 via transfer point T-R35. Conveyor C-R19 transfers coal to conveyor C-R17 via transfer point T-R49 which transfers to Harris. Conveyor C-R13 transfer clean coal to railcar loadout bin B-R5 via transfer point T-R36. Clean coal is then transferred to railcar via transfer point T-R37.

The facility shall be modified and operated in accordance with the following equipment and control device information taken from permit applications R13-0772L, R13-0772K, R13-0772J, R13-0772I, R13-0772H, R13-0772F, R13-0772D, R13-0772C, R13-0772B, R13-0772A and R13-0772 and any amendments thereto:

Equipment ID No.	Date of Construction, Reconstruction or Modification <sup>1</sup>	Description	Maximum Capacity		Control Equipment <sup>2</sup>
			TPH	TPY	
Harris Raw Coal Circuit					

Equipment ID No.	Date of Construction, Reconstruction or Modification <sup>1</sup>	Description	Maximum Capacity		Control Equipment <sup>2</sup>
			TPH	TPY	
OS-H9 (98S)	Not Constructed*	Raw Coal Stockpile (36,256 sq-ft/25,000 tons) - receives raw coal from the Black Oak Mine Belt, stores it and then it is reclaimed via underground feeders to C-H15 (*Permitted in 2008, but not yet constructed as of November 2011)	4,000 in 1,400 out	5,600,000	N
C-H15 (99S)	Not Constructed*	Belt Conveyor - receives raw coal from OS-H9 and transfers it to SC-R3 (*Permitted in 2008, but not yet constructed as of November 2011)	1,400	5,600,000	PE
SC-R3 (51S)	Not Constructed*	Single Deck Screen - receives raw coal from C-H15, classifies it and the oversize passes through a chute to OS-R18 and the undersize drops to C-H16 (*Permitted in 2008, but not yet constructed as of November 2011)	1,400	5,600,000	FE, FE
OS-R18 (97S)	Not Constructed*	Refuse Stockpile (20,974 sq-ft/10,000 tons) - receives oversize refuse from SC-R3, stores it and then it is reclaimed via front end loaders to trucks (*Permitted in 2008, but not yet constructed as of November 2011)	1,400	1,900,000	N
C-H16 (100S)	Not Constructed*	Belt Conveyor - receives sized raw coal from SC-R3 and transfers it to the Harris Mine Belt (*Permitted in 2008, but not yet constructed as of November 2011)	1,400	5,600,000	PE
OS-H1 (32S)	1993	Raw Coal Stockpile with Stacking Tube (50,700 sq-ft/120,000 tons) - receives raw coal from the Harris Mine Belt, stores it and then it is reclaimed via underground feeders to C-H1	4,000 in 800 out	7,000,000	N
C-H1 (30S)	1993	Raw Coal Stockpile Reclaim Conveyor - receives raw coal from OS-H1 and transfers it to RB-H1 (see Harris Preparation Plant - Grandfathered Raw Coal Circuit below)	800	7,000,000	PE
C-R14 (36S)	1997	Raw Coal Shuttle Conveyor No. 1 - receives raw coal from the Harris Mine Belt and transfers it to OS-R7 or C-R37	4,000	12,000,000	PE
OS-R7 (46S)	1993	Raw Coal Stockpile with Stacking Tube (30,700 sq-ft/40,000 tons) - receives raw coal from C-R14, stores it and then it is reclaimed via underground feeders to C-R15	4,000 in 1,400 out	12,000,000	N
C-R37 (73S)	1997	OS-R13 Transfer Conveyor - receives raw coal from C-R14 and transfers it to OS-R13	4,000	12,000,000	PE
OS-R13 (70S)	1997	Raw Coal Stockpile with Stacking Tube (30,700 sq-ft/40,000 tons) - receives raw coal from C-R37, stores it and then it is reclaimed via underground feeders to C-R15	4,000 in 1,400 out	12,000,000	N
C-R15 (37S)	1997	Raw Coal Screening Tower Feed Conveyor - receives raw coal from OS-R7 and OS-R13 and transfers it to CR-R2	1,400	12,000,000	PE
CR-R2 (50S)	2007	Raw Coal Sizing Crusher (Retired in place, coal passes through only) - receives raw coal from C-R15 and the magnet discharge chute drops to OS-R15 while the rest drops to C-R16	1,400	12,000,000	FE
OS-R15 (82S)	2002	Refuse/Overburden Stockpile (743 sq-ft/100 tons) - receives refuse from the magnet discharge chute, stores it and it is reclaimed via front end loader to trucks	1,400 in	500,000	N
C-R16 (38S)	1997	Raw Coal Transfer Conveyor to Underground Conveyor - receives raw coal from CR-R2 and transfers it to C-R17	1,400	12,000,000	PE
C-R17 (39S)	1997	Underground Conveyor - two way reversing conveyor receives raw coal from C-R16 and transfers it to Rocklick OS-R5 or it receives clean coal from Rocklick C-R19 and transfers it to Harris C-R20	1,400	12,000,000	PE
<b>Harris Clean Coal Circuit</b>					

Equipment ID No.	Date of Construction, Reconstruction or Modification <sup>1</sup>	Description	Maximum Capacity		Control Equipment <sup>2</sup>
			TPH	TPY	
C-R20 (42S)	1997	Clean Coal Transfer Conveyor No. 2 - receives clean coal from C-R17 and transfers it to C-R21	1,400	8,000,000	PE
C-R21 (43S)	Not Constructed*	Clean Coal Transfer Conveyor No. 3 - receives raw and clean coal from C-R20 and transfers it to C-R22 (*Permitted in 1997, but not yet constructed as of November 2011)	1,400	8,000,000	PE
C-R22 (44S)	1997	Clean Coal Transfer Conveyor No. 4 - receives raw and clean coal from C-R21 and transfers it to OS-R8 or C-R23	1,400	8,000,000	PE
OS-R8 (47S)	1993	Clean Coal Stockpile with Stacking Tube (78,000 sq-ft/112,000 tons) - receives clean coal from C-R22, stores it and then it is reclaimed via underground feeders to C-H11 or to Kopperston for loadout	1,400	8,000,000	N
C-R23 (45S)	1997	Clean Coal Shuttle Conveyor No. 1 - receives clean coal from C-R22 and transfers it to OS-R14	1,400	8,000,000	PE
OS-R14 (80S)	1993	Clean Coal Stockpile with Stacking Tube (78,000 sq-ft/112,000 tons) - receives clean coal from C-R23, stores it and then it is reclaimed via underground feeders to Kopperston for loadout	1,400	8,000,000	N
<b>Winifrede Raw Coal Handling Facility - Truck, Colony Bay and Winifrede 14 Mine</b>					
RCTD-2 (93S)	2005	Raw Coal Truck Dump - receives raw coal from trucks and drops it to C-R34A	600	5,200,000	PE
C-R34A (94S)	2005	Truck Dump (RCTD-2) Conveyor - receives raw coal from RCTD-2 and transfers it to C-R34	600	5,200,000	PE
C-R34 (62S)	2005	Mine 13 Conveyor - receives raw coal from CR-34A and transfers it to OS-R9	600	5,200,000	PE
OS-R9 (64S)	1999	Raw Coal Stockpile with Stacking Tube (50,000 sq-ft/60,000 tons) - receives raw coal from C-R34, stores it and then it is reclaimed via underground feeders to C-R24	600 in 1,200 out	5,200,000	N
OS-R16 (86S)	2005 or after*	Winifrede Raw Coal Stockpile (32,854 sq-ft/20,000 tons) - receives raw coal from the Colony Bay (G10-B045A, ID# 005-00074), stores it and then it is reclaimed via underground feeders to C-R24 (*Permitted in 2002, but not constructed until after 2005)	600 in 1,200 out	5,200,000	N
OS-R10 (65S)	2004	Winifrede 14 Stockpile (50,000 sq-ft/60,000 tons) - Originally received raw coal from the Winifrede 14 Mine which was shut down in 2003. Now can receive raw coal from trucks, store it and then it is reclaimed via underground feeders to C-R24 or C-R35. According to a note on the PFD, it is only used in case of emergency or breakdown situations of the Winifrede Conveyor System.	600 in 1,200 out	5,200,000	N
C-R35 (63S)	2004	Truck Bin Reclaim Conveyor - receives raw coal from OS-R10 and transfers it to B-R6. According to a note on the PFD, it is only used in case of emergency or breakdown situations of the Winifrede Conveyor System.	1,000	5,200,000	PE
B-R6 (68S)	2004	Winifrede Loadout Bin (40 tons) - receives raw coal from C-R35 and loads to trucks. According to a note on the PFD, it is only used in case of emergency or breakdown situations of the Winifrede Conveyor System.	1,000 in	5,200,000	FE
C-R24 (52S)	2005	Reclaim Conveyor - receives raw coal from OS-R9, OS-R16 and OS-R10 and transfers it to OS-R12 or C-R25	1,200	9,000,000	PE

Equipment ID No.	Date of Construction, Reconstruction or Modification <sup>1</sup>	Description	Maximum Capacity		Control Equipment <sup>2</sup>
			TPH	TPY	
OS-R12 (67S)	1999	Emergency Stockpile (3000 sq-ft/5000 tons) - receives raw coal from C-R24 and it is reclaimed via front end loader to trucks	1,000	5,200,000	N
C-R25 (53S)	2005	Transfer Conveyor No. 1 - receives raw coal from C-R24 and transfers it to CR-W1	1,200	9,000,000	PE
CR-W1 (88S)	2005	Inline Feeder Crusher - receives raw coal from C-R25, crushes it and then it drops to C-R26	1,200	9,000,000	FE
C-R26 (54S)	2005	Transfer Conveyor No. 2 - receives sized raw coal from CR-W1 and transfers it to C-R27	1,200	9,000,000	PE
C-R27 (55S)	2005	Transfer Conveyor No. 3 - receives sized raw coal from C-R26 and transfers it to C-R29	1,200	9,000,000	PE
<b>Winifrede Raw Coal Handling Facility - Winifrede 13A Mine</b>					
C-R28 (56S)	1999	Winifrede 13A Conveyor - receives raw coal from the Winifrede 13A Mine and transfers it to C-R38	600	5,200,000	PE
C-R38 (81S)	2002	Winifrede 13A Conveyor - receives raw coal from C-R28 and transfers it to OS-R11	600	5,200,000	PE
OS-R11 (66S)	1999	Winifrede 13A Stockpile (65,000 sq-ft/70,000 tons) - receives raw coal from C-R38 and it is reclaimed via a dozer to underpile reclaim feeders to C-R29	600	5,200,000	N
C-R29 (57S)	2005	Transfer Conveyor No. 4 - receives raw coal from OS-R11 and C-R27 and transfers it to C-R30	1,200	9,000,000	PE
C-R30 (58S)	2005	Transfer Conveyor No. 6 - receives raw coal from C-R29 and transfers it to C-R31	1,200	9,000,000	FE
C-R31 (59S)	2005	Transfer Conveyor No. 7 - receives raw coal from C-R30 and transfers it to C-R32	1,200	9,000,000	PE
RCTD-1 (92S)	Not Constructed*	Raw Coal Truck Dump - receives raw coal from trucks and drops through and enclosed chute to C-R32 (*Permitted in 2002, but not yet constructed as of November 2011)	600	720,000	PE
C-R32 (60S)	2005	Transfer Conveyor No. 8 - receives raw coal from RCTD-1 and C-R31 and transfers it to C-R33	1,200	9,000,000	PE
C-R33 (61S)	2005	Transfer Conveyor No. 9 - receives raw coal from C-R32 and transfers it to Rocklick OS-R2 or C-R39	1,200	9,000,000	PE
<b>Rocklick Preparation Plant - Raw Coal Circuit</b>					
C-R17 (39S)	1997	Underground Conveyor - two way conveyor receives raw coal from C-R16 and transfers it to Harris C-R20 or Rocklick OS-R5 or it receives clean coal from Rocklick C-R19 and transfers it to Harris C-R20	1,400	12,000,000	PE
OS-R5 (48S)	2005	Raw Coal Stockpile (31,541 sq-ft/30,000 tons) - receives raw coal from Harris on C-R17 and trucks via a 60' highwall dump and it is reclaimed via underpile reclaim feeders to C-R3	1,400	12,000,000	N
B-R1 (22S)	1997	Truck Dump Hopper (100 tons) - receives raw coal from trucks and drops it to C-R1	1,400	12,000,000	PE
C-R1 (1S)	2005	R.O.M. Storage Conveyor - receives raw coal from B-R1 and transfers it to OS-R1	1,400	12,000,000	PE
C-R39 (83S)	Not Constructed*	Raw Coal Bypass Conveyor - receives raw coal from Winifrede C-R33 and transfers it to OS-R1 (*Permitted in 2002, but not yet constructed as of November 2011)	1,000	1,500,000	PE

Equipment ID No.	Date of Construction, Reconstruction or Modification <sup>1</sup>	Description	Maximum Capacity		Control Equipment <sup>2</sup>
			TPH	TPY	
OS-R1 (14S)	1997	Raw Coal Stockpile (25,300 sq-ft/20,000 tons) - receives raw coal from C-R1 or C-R39, stores it and then it is reclaimed via underpile reclaim feeders to C-R3	2,400	12,200,000	N
B-R2 (23S)	1997	Truck Dump Hopper (100 tons) - receives raw coal from trucks and drops it to C-R2	1,400	12,000,000	PE
C-R2 (2S)	1997	R.O.M. Storage Conveyor - receives raw coal from B-R2 and transfers it to OS-R2	1,400	12,000,000	PE
OS-R2 (15S)	1997	Raw Coal Stockpile (25,300 sq-ft/20,000 tons) - receives raw coal from C-R2 and Winifrede C-R33, stores it and then it is reclaimed via underpile reclaim feeders to C-R3	2,400	12,200,000	N
C-R3 (3S)	2005	Raw Coal Stockpile Reclaim Conveyor - receives raw coal from OS-R1, OS-R2 and OS-R5 and transfers it to C-R40 or SC-R1	3,200	14,000,000	PE
C-R40 (84S)	Not Constructed*	Raw Coal Bypass Conveyor - receives raw coal from C-R3 and transfers it to CR-R1 (*Permitted in 2002, but not yet constructed as of November 2011)	1,800	1,500,000	PE
CR-R1 (19S)	Not Constructed*	Raw Coal Bypass Crusher - receives raw coal from C-R40, crushes it and drops to C-R41 (*Permitted in 2002, but not yet constructed as of November 2011)	1,800	1,500,000	FE
C-R41 (85S)	Not Constructed*	Raw Coal Bypass Conveyor - receives raw coal from C-R1 and transfers it to C-R9 (*Permitted in 2002, but not yet constructed as of November 2011)	1,800	1,500,000	PE
SC-R1 (20S)	2005	Raw Coal Vibrating Screen - receives raw coal from C-R3, classifies it and the oversize drops to RB-R1 while the undersize drops to C-R4	3,200	14,000,000	FE/WS
RB-R1 (18S)	2005	Rotary Breaker - receives oversize raw coal from SC-R1, crushes it and drops to C-R4 while reject drops to C-R5	1,200	4,200,000	FE
C-R5 (5S)	2005	Breaker Reject Conveyor - receives reject from RB-B1 and transfers it to C-R6 (see Rocklick Preparation Plant - Refuse Circuit below)	600	360,000	PE
C-R4 (4S)	2005	Plant Feed Conveyor - receives sized raw coal from SC-R1 and RB-R1 and transfers it to SC-R2C	3,200	14,000,000	PE
SC-R2C (21S)	2005	Raw Coal Vibrating Bypass Screen - receives sized raw coal from C-R4, classifies it and the oversize drops to RB-R1 while the undersize drops to C-R8	1,000	2,400,000	PE
C-R8 (8S)	2005	Plant Bypass Conveyor - receives sized raw coal from SC-R2C and transfers it to C-R9	1,000	2,400,000	FE
<b>Rocklick Preparation Plant - Clean Coal Circuit</b>					
B-R6 (102S)	C 1993 *	Magnetite Bin - receives magnetite pneumatically loaded from trucks (transfer controlled with a filter vent with 80% control efficiency), stores it and then introduces it into the wet wash circuit (*Constructed in 1993, but not included in a permit until 2012)	50	3,000	FE, FV
C-R9A (101S)	C 1993 *	Clean Coal Collection Conveyor - receives clean coal from the wet wash circuit and transfers it to C-R9 (*Constructed in 1993, but not included in a permit until 2012)	3,200	8,000,000	FE
C-R9 (9S)	1997	Clean Coal Collection Conveyor - receives sized raw coal from C-R8 and C-R41, clean coal from C-R9A and clean coal directly from the wet wash circuit and transfers it to C-R10	3,200	8,000,000	PE
C-R10 (10S)	1997	Clean Coal Stockpile Feed Conveyor - receives sized raw coal and clean coal from C-R9 and transfers it to OS-R3 or C-R11	3,200	8,000,000	PE



Equipment ID No.	Date of Construction, Reconstruction or Modification <sup>1</sup>	Description	Maximum Capacity		Control Equipment <sup>2</sup>
			TPH	TPY	
OS-R3 (16S)	1997	Clean Coal Stockpile with Stacking Tube (66,700 sq-ft/50,000 tons) - receives sized raw coal and clean coal from C-R10, stores it and then it is reclaimed via underpile reclaim feeders to C-R12	4,000	8,000,000	N
C-R11 (11S)	1997	Clean Coal Transfer Conveyor - receives sized raw coal and clean coal from C-R10 and transfers it to OS-R4 or C-R18	3,200	8,000,000	PE
OS-R4 (17S)	1997	Clean Coal Stockpile with Stacking Tube (66,700 sq-ft/50,000 tons) - receives sized raw coal and clean coal from C-R11, stores it and then it is reclaimed via underpile reclaim feeders to C-R12	4,000	8,000,000	N
C-R18 (40S)	1997	Clean Coal Shuttle Conveyor - receives sized raw coal and clean coal from C-R11 and transfers it to OS-R6	3,200	8,000,000	PE
OS-R6 (49S)	1997	Clean Coal Stockpile with Stacking Tube (66,700 sq-ft/50,000 tons) - receives sized raw coal and clean coal from C-R18, stores it and then it is reclaimed via underpile reclaim feeders to C-R12	4,000	8,000,000	N
C-R12 (12S)	1997	Clean Coal Stockpile Reclaim Conveyor - receives sized raw coal and clean coal from OS-R3, OS-R4 and OS-R6 and transfers it to C-R13 or C-R19	4,000	8,000,000	PE
C-R13 (13S)	1997	Clean Coal Loadout Conveyor - receives sized raw coal and clean coal from C-R12 and transfers it to B-R5	4,000	8,000,000	PE
B-R5 (26S)	1997	Clean Coal Loadout Bin to Batch Weigh Train Loadout (300 tons) - receives sized raw coal and clean coal from C-R13 and loads it to rail cars	4,000	8,000,000	FE
C-R19 (41S)	1997	Clean Coal Transfer Conveyor No. 1 to Underground Conveyor - receives sized raw coal and clean coal from C-R12 and transfers it to C-R17 (see Rocklick Preparation Plant - Raw Coal Circuit above)	1,400	8,000,000	PE
<b>Rocklick Preparation Plant - Refuse Circuit</b>					
C-R7 (7S)	2005	Wet Wash Refuse Conveyor - receives refuse from the wet wash process and transfers it to C-R6	1,200	6,000,000	PE
C-R36 (74S)	2005	Wet Wash Refuse Conveyor - receives refuse from the wet wash process and transfers it to C-R6	1,200	6,000,000	PE
C-R6 (6S)	2005	Refuse Conveyor - receives refuse from C-R7, C-R36 and C-R5 and transfers it to C-R37	1,200	6,000,000	PE
C-R37 (95S)	2005	Refuse Conveyor - receives refuse from C-R6 and transfers it to C-R42	1,200	6,000,000	PE
C-R42 (96S)	2005	Refuse Conveyor - receives refuse from C-R37 and transfers it to B-R3	1,200	6,000,000	PE
B-R3 (24S)	2005	Refuse Truck Dump Bin (400 tons) - receives refuse from C-R42 and loads it to trucks	1,200	6,000,000	FE

<sup>1</sup> In accordance with 40 CFR 60 Subpart Y, coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified on or before April 28, 2008 shall not discharge gases which exhibit 20 percent opacity or greater. In accordance with 40 CFR 60 Subpart Y, coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified after April 28, 2008 shall not discharge gases which exhibit 10 percent opacity or greater.

<sup>2</sup> Control Device Abbreviations: FV - Filter Vent; FE - Full Enclosure; PE - Partial Enclosure; WS - Water Sprays; and N - None.

## SITE INSPECTION

Mike Kolb of the DAQ's Compliance and Enforcement Section performed a full-on targeted site inspection on November 17, 2008. At the time of the inspection, Mr. Kolb found the facility to be in compliance and assigned it a Status Code of 30: In Compliance. Andy Grimm of the DAQ's Compliance and Enforcement Section was scheduled to inspect the facility by October 1, 2011.

Directions from Charleston are to take Interstate I-77 South/I-64 East, take Exit 89 for WV 61/Marmet/Chesapeake, turn right onto State Route 94 (Lens Creek Road) West and travel 9.8 miles and then keep left at the fork to stay on State Route 94 and travel 0.3 miles, take slight left for State Route 3 (Coal River Road) and travel 5.5 miles, turn right onto County Route 5 (Prenter Road/Seth Prenter Road) and travel 17.7 miles, turn right onto County Route 26 (Bandytown Twilight Road/Chap Road) and travel 0.9 miles, turn sharp left onto State Route 85 South and travel 11.5 miles to Bald Knob, and then travel approximately 3 miles further south on State Route 85 and the plant entrance will be on the left hand side of the road.

### ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Fugitive emission calculations for continuous and batch drop operations, transfer points, crushing and screening, storage piles, and paved and unpaved haulroads are based on AP-42 Fifth Edition "Compilation of Air Pollution Emission Factors", Volume 1. Control efficiencies were applied based on "Calculation of Particulate Matter Emission - Coal Preparation Plants and Material Handling Operations." The emission factors for crushing/breaking and screening operations were obtained from the Air Pollution Engineering Manual - Air & Waste Management Association - June 1992. The increase in emissions calculations were performed by the applicant using the DAQ's G10-C Excel spreadsheet and were checked for accuracy and completeness by the writer.

The proposed modifications will result in an increase in the potential to discharge controlled emissions from point sources of 54.35 pounds per hour and 92.54 TPY of particulate matter (PM), of which 16.17 pounds per hour and 27.48 TPY will be particulate matter less than 10 microns in diameter (PM<sub>10</sub>). The writer used the DAQ's G10-C Excel spreadsheet to calculate the increase in emissions to verify the increase in emissions calculations performed by the applicant's consultant. A copy has been attached. Refer to the following table for a summary of the proposed increase in emissions:

<i>Proposed Increase in Emissions - Eastern Associated Coal, LLC R13-0772L</i>	<b>Controlled PM Emissions</b>		<b>Controlled PM<sub>10</sub> Emissions</b>	
	lb/hour	TPY	lb/hour	TPY
<b>Fugitive Emissions</b>				
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	53.61	91.62	15.82	27.04
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
<i>Fugitive Emissions Total</i>	53.61	91.62	15.82	27.04
<b>Point Source Emissions</b>				

Equipment Emissions	0.00	0.00	0.00	0.00
Transfer Point Emissions	0.74	0.92	0.35	0.44
Pneumatic Magnetite Transfer	1.20	0.04	0.60	0.02
<i>Point Source Emissions Total (PTE)</i>	1.94	0.96	0.95	0.46
<b>FACILITY EMISSIONS TOTAL</b>	<b>55.55</b>	<b>92.58</b>	<b>16.77</b>	<b>27.50</b>

Eastern Associated Coal, LLC's facility currently consists of their Rocklick Preparation Plant, Harris Preparation Plant and Winifrede Coal Handling Facility. The proposed modification will result in the following new estimated facility-wide potential to discharge controlled emissions:

<i>New Facility-wide Emissions Summary - Eastern Associated Coal, LLC R13-0772L</i>	<b>Controlled PM Emissions</b>	<b>Controlled PM<sub>10</sub> Emissions</b>
	TPY	TPY
<b>Fugitive Emissions</b>		
Rocklick Preparation Plant	632.84	121.26
Harris Preparation Plant	236.45	47.73
Winifrede Coal Handling Facility	1,254.33	229.80
<i>Fugitive Emissions Total</i>	<i>2,123.62</i>	<i>398.79</i>
<b>Point Source Emissions</b>		
Rocklick Preparation Plant	39.20	18.46
Harris Preparation Plant	15.72	7.40
Winifrede Coal Handling Facility	37.14	17.51
<i>Point Source Emissions Total (PTE)</i>	<i>92.06</i>	<i>43.37</i>
<b>FACILITY EMISSIONS TOTAL</b>	<b>2,215.68</b>	<b>442.16</b>

## REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the proposed modified facility. The proposed modification of Eastern Associated Coal, LLC's wet wash coal preparation plant is subject to the following state and federal rules:

*45CSR5 To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas*

The facility is subject to the requirements of 45CSR5 because it meets the definition of "Coal Preparation Plant" found in subsection 45CSR5.2.4. The facility should be in compliance with Section 3 (less than 20% opacity) and Section 6 (fugitive dust control system and dust control of the premises and access roads) when the particulate matter control methods and devices proposed are in operation.

*45CSR7 To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations*

45CSR7 applies to “source operations” located at “manufacturing processes” that, excluding those manufacturing processes specified under §45-7-10.5 and §45-7-10.6, have the potential to emit particulate matter and acid gases. The facility is subject to the requirements of 45CSR7 because it meets the definition of a “manufacturing process” as defined in Section 2.20. The source operations subject to 45CSR7 are the transport and loading of magnetite used in the wet wash circuit.

Section 3.1 of 45CSR7 sets an opacity limit of 20% on all applicable source operations. The facility should be in compliance with this requirement because magnetite bin BR-6 is equipped with a filter vent with an 80% control efficiency.

Section 4.1 of 45CSR7 requires that each manufacturing process meet a particulate matter stack emission limit based on the weight of material processed through the source operation. The emission limits are given under Table 45-7A and are based on the type source operation as defined in this Rule. The source operation subject to this standard is the pneumatic filling of magnetite bin BR-6. This operation is controlled by use of a filter vent with an 80% control efficiency.

Under Section 2.39 of 45CSR7, this operation would be defined as a “type’a” source operation. Based on the maximum magnetite throughput of 100,000 pounds/hour (50 TPH), the maximum allowable emission of 33.0 pounds per hour is derived from Table 45-7A. The maximum potential emissions associated with filling magnetite bin BR-6 will be 1.20 pounds/hour, or approximately 3.6% of the maximum allowable emission rate. Therefore, the facility should be in compliance with this requirement.

Section 5.1 of 45CSR7 states that each manufacturing process must include a system to minimize the emissions of fugitive particulate matter. Magnetite Bin BR-6 is equipped with a filter vent with an 80% control efficiency.

Section 5.2 of 45CSR7 states that the owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, and use good operating practices in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. The only fugitive source of emissions from the magnetite circuit are the unpaved haulroads (when being used to transport magnetite into the facility). The facility has proposed the use of a water truck to minimize emissions from the unpaved haulroads and work areas and it should be in compliance with this requirement.

*45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation*

The proposed modification is subject to the requirements of 45CSR13 because it will result in an increase in potential controlled emissions greater than six (6) pounds per hour and ten (10) tons per year of a regulated air pollutant (PM and PM<sub>10</sub>) and will involve the construction of one conveyor, which will be subject to NSPS Subpart Y. The applicant has submitted an application for a modification permit. The applicant published a Class I legal advertisement in *The Charleston Gazette* on October 3, 2011 and submitted \$1,000 for the application fee and \$1,000 for the NSPS fee. The applicant published another Class I legal advertisement in the *Coal Valley News* on January 11, 2012.

*45CSR16 Standards of Performance for New Stationary Sources*  
*40 CFR 60 Subpart Y: Standards of Performance for Coal Preparation and Processing Plants*

This facility is subject to 40 CFR 60 Subpart Y because it was constructed and will be modified after October 24, 1974 and will process more than 200 tons of coal per day. The proposed modification includes the addition of one conveyor (C-R9A), which is defined as an affected facility in 40 CFR 60 Subpart Y. Therefore, the proposed modification is subject to 45CSR16, which incorporates by reference 40 CFR 60 Subpart Y - Standards of Performance for Coal Preparation Plants. The facility should be in compliance with the following: Section 254(a) (less than 20% opacity for coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems processing coal constructed, re-constructed or modified on or before April 28, 2008); and Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems processing coal constructed, re-constructed or modified after April 28, 2008) when the particulate matter control methods and devices proposed are in operation.

*45CSR30 Requirements for Operating Permits*

In accordance with 45CSR30 Major Source Determination, this wet wash coal preparation plant will continue to be a non-major source which is subject to 40 CFR 60 Subpart Y. The facility is *not* listed in 45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions (open storage piles constructed or modified on or before May 27, 2009 and haulroads) when determining whether it is a major stationary source for the purposes of § 302(j) of the Clean Air Act. The modified facility's proposed potential to emit will be 43.37 TPY for PM<sub>10</sub> (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR30 threshold of 100 TPY of a regulated air pollutant used to define a major stationary source. Therefore, the facility will continue to be subject to 45CSR30 and classified as a Title V deferred source.

The proposed modification of Eastern Associated Coal, LLC's wet wash coal preparation plant is not subject to the following state and federal rules:

*45CSR14 Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration*

In accordance with 45CSR14 Major Source Determination, this wet wash coal preparation plant is not one of the 100 TPY stationary sources listed under the definition of “Major Stationary Source” in subsection 2.43.a. Therefore, it must have the potential to emit 250 TPY or more of any regulated pollutant to meet the definition of a major source in subsection 2.43.b. At the end of subsection 2.4.3, this facility is not listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. So, fugitive emissions (from open storage piles constructed or modified on or before May 27, 2009 and haulroads) are not included when determining major stationary source applicability. The facility’s potential to emit will be 92.06 TPY for PM (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR14 threshold of 250 TPY for a regulated air pollutant used to define a major stationary source. Therefore, the proposed modifications are not subject to the requirements set forth within 45CSR14.

#### TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the pollutants being emitted from this facility are PM (particulate matter) and PM<sub>10</sub> (particulate matter less than 10 microns in diameter), which are non-toxic pollutants.

#### AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the nature and extent of the modifications proposed for this existing facility. This facility is located in Boone County, WV, which is currently in attainment for PM (particulate matter) and PM<sub>10</sub> (particulate matter less than 10 microns in diameter). This facility is not a major source as defined by 45CSR14, therefore, an air quality impact analysis is not required.

#### MONITORING OF OPERATIONS

The coal handling equipment and storage areas should be observed to make sure that the facility is meeting the applicable visible emission standards. In accordance with 45CSR5 and 40 CFR 60.254(a), all emissions from coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified on or before April 28, 2008 shall be less than 20% opacity. In accordance with 40 CFR 60.254(b), all emissions from coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified after April 28, 2008 shall be less than 10% opacity.

#### CHANGES TO CURRENT PERMIT R13-0772K

- Include existing clean coal conveyor C-R9A constructed in 1993
- Include existing magnetite bin B-R6 constructed in 1993 and located inside the Rocklick prep plant building
- Include previously grand-fathered Harris Plant haulroad UPR-H2 because it was lengthened in 2008 from 1.4 miles to 1.64 miles roundtrip

#### RECOMMENDATION TO DIRECTOR

The information contained in this permit application indicates that compliance with all applicable regulations should be achieved when all of the proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. Therefore, the granting of a permit to Eastern Associated Coal, LLC for the modification of their existing wet wash coal preparation plant located near Bald Knob, Boone County, WV is hereby recommended.

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Daniel P. Roberts, Engineer Trainee  
NSR Permitting Section

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April 4, 2012  
Date